

2002 Results Summary

North Atlantic Right Whale Sighting Survey (NARWSS)

and

Sighting Advisory System (SAS)

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OVERVIEW The North Atlantic Right Whale Sighting Survey (NARWSS) is a NOAA Fisheries aerial survey program dedicated to charting the seasonal distribution of right whales off the northeastern U.S. The Sighting Advisory System (SAS) alerts mariners to the presence of right whales via fax, email, the internet, Broadcast Notice to Mariners (BNM), Weather Radio, and the Mandatory Ship Reporting system (MSR). The SAS collects right whale sighting reports from a variety of sources including the NARWSS and the general public. The results of both programs' efforts in 2002 are summarized in the following tables and figures.

NARWSS TABLE 1 summarizes the number of flights and flight hours completed in each month that surveys were conducted by NARWSS during 2002. There were three primary types of surveys flown: broadscale, focused surveys in the Great South Channel (GSC) region and focused surveys over potential and realized Dynamic Area Management (DAM) closure zones. Broadscale surveys were flown along systematic tracklines that covered all Federal waters west of the Hague Line from south of Long Island, New York, to Eastport, Maine. These surveys were flown to provide a synoptic view of right whale distribution; a completed series indicates coverage of the entire area. Surveys focused on the GSC served the dual purpose of providing relatively current locations of right whale aggregations to commercial shipping traffic and high photographic recapture rates of individuals for vital rate models of the population. DAM confirmation flights included flights made to investigate reported sightings of right whale aggregations outside of existing closures as well as monitoring aggregations' duration of residence within established DAM zones.

NARWSS FIGURE 1 shows all NARWSS tracklines flown (thin lines) and right whale sighting locations (bullseyes) for spring 2002. Seasonal right whale closure areas in effect during each period are shown as heavy lines. Closure areas in effect for only a portion of the period are represented by medium lines.

NARWSS FIGURE 2 presents a synopsis of the systematic broadscale surveys conducted during both the spring and fall of 2002. The data were grouped by ten-minute latitude by ten-minute longitude geographic cells. Effort levels within each cell were ranked according to the nautical miles of surveys completed within them, excluding circling. Cells with higher effort levels were shaded more darkly, while areas with no effort were left blank. To make sighting levels between cells with different effort levels comparable, the number of right whales sighted within a cell was divided by the nautical miles of surveying completed in the same cell. The resulting Sightings Per Unit Effort (SPUE) within each cell was then ranked, with higher SPUE levels indicated by darker shading. Seasonal right whale closure areas in effect during each period are shown as heavy lines. Closure areas in effect for only a portion of the period are represented by medium lines.

SAS TABLE 1 summarizes the SAS reporting for 2002 from all sources. The number of reports includes unconfirmed and late reports. Unconfirmed and late reports did not generate alerts. Often reports were combined into one alert. A total of 110 alerts were broadcast in 2002.

SAS FIGURE 1a illustrates the number of reports received by source in each month of 2002 from Maine through New York. SAS FIGURE 1b shows the same for reports received from New Jersey through North Carolina.

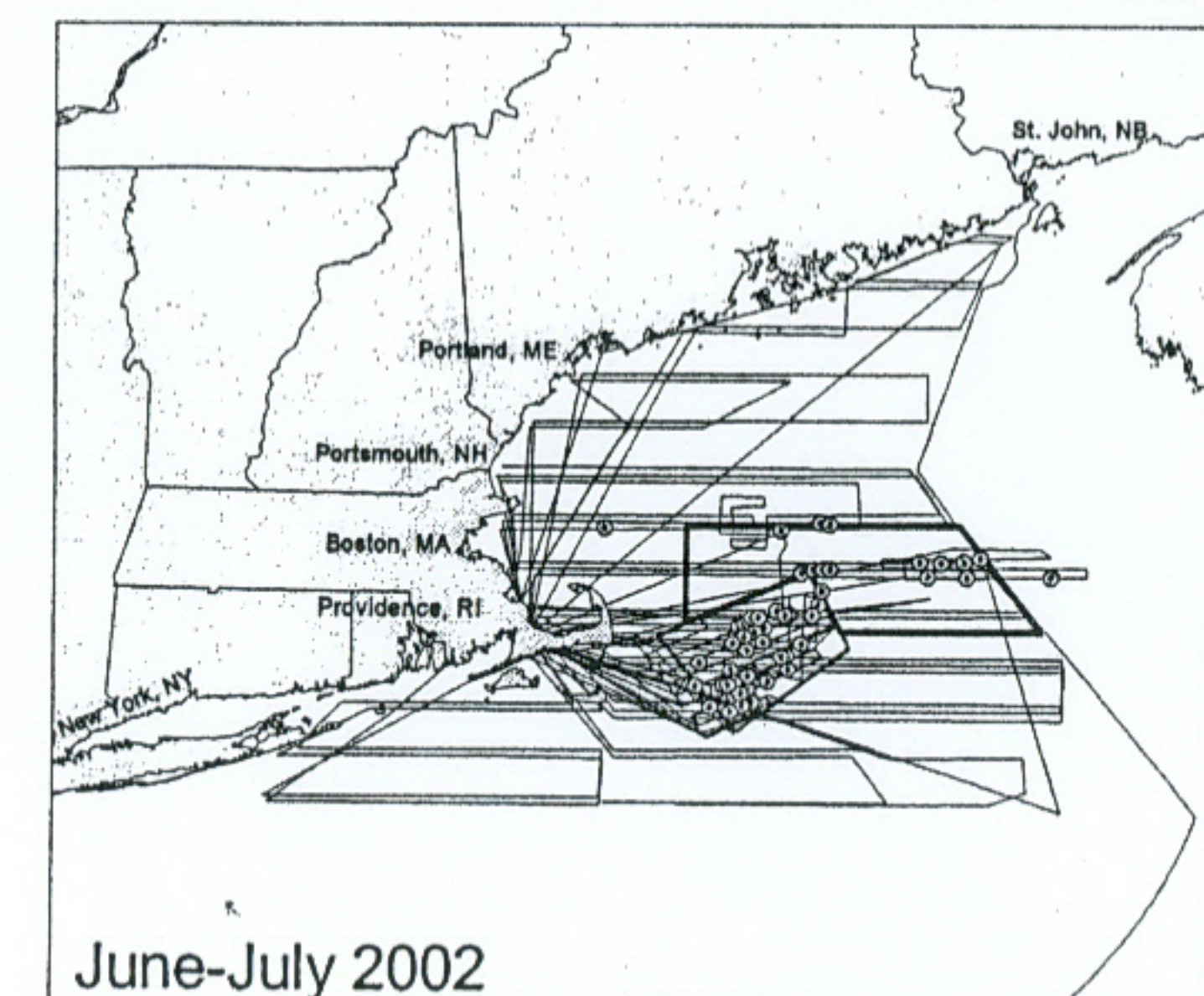
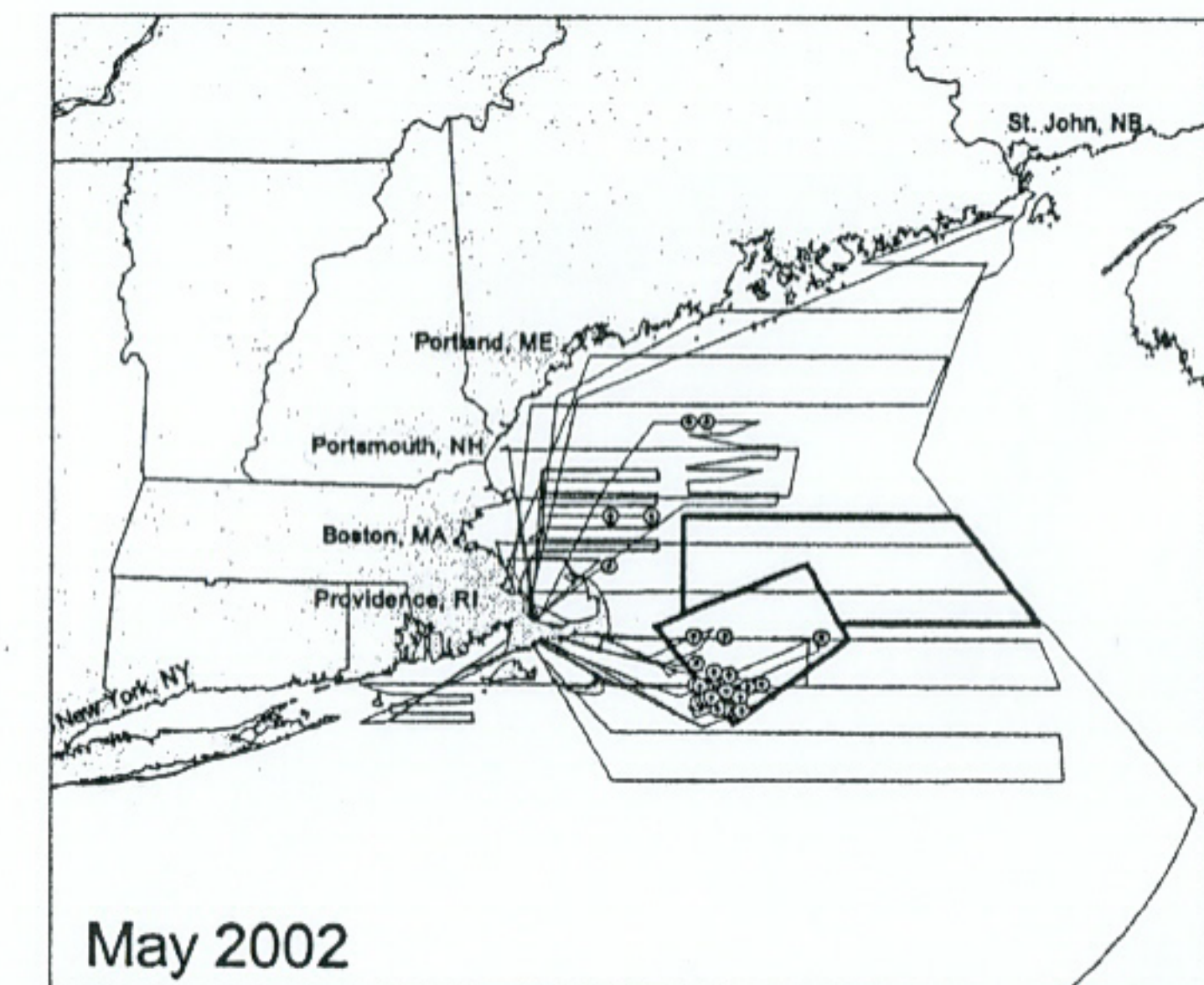
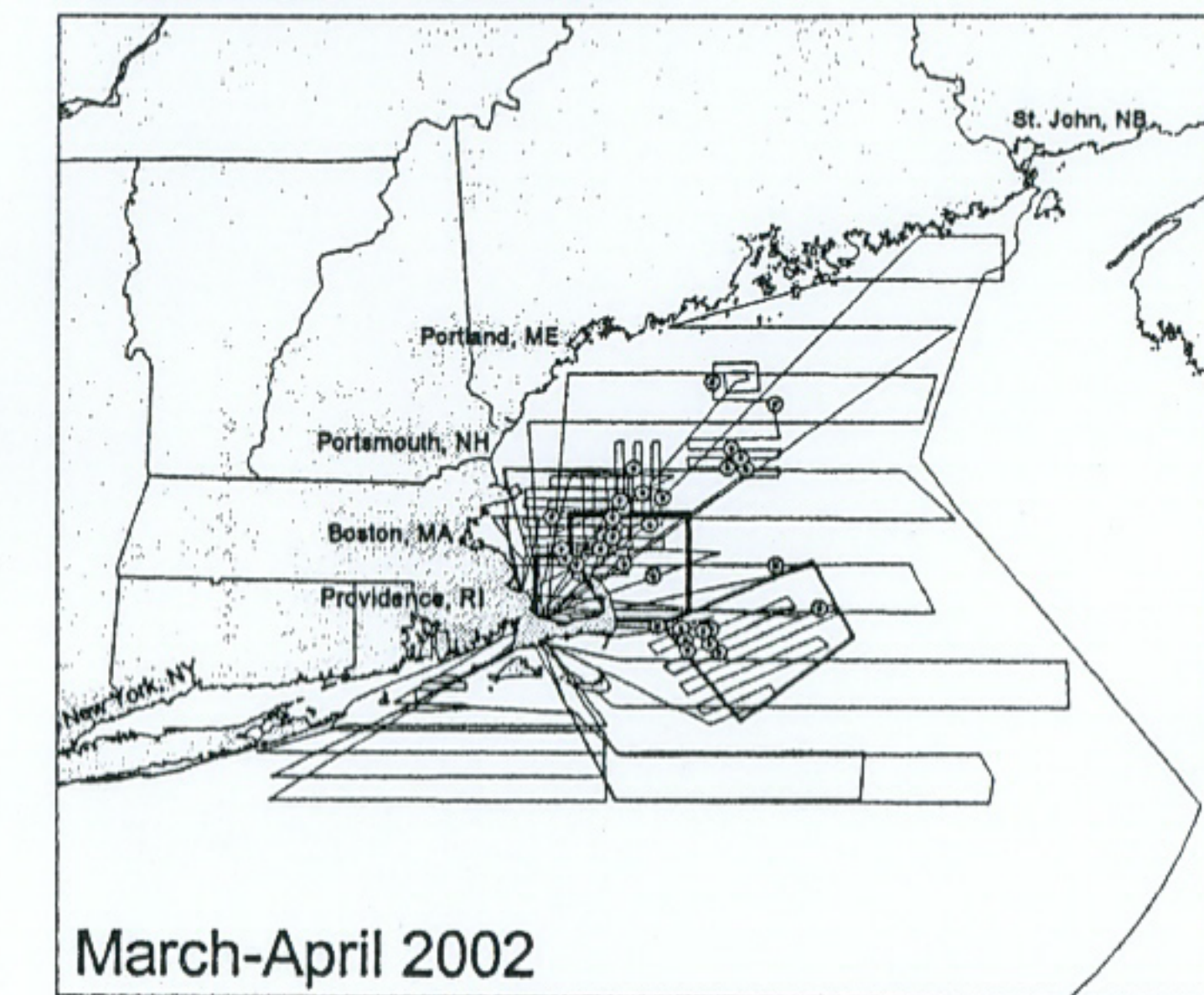
SAS FIGURE 2 plots all sightings received by the SAS in 2002 in the northeast region, including unconfirmed and late reports. The number of whales reported in each sighting is depicted by graduated symbols that also differentiate reporting source. The 50-fathom contour, 100-fathom contour, shipping lanes, Cape Cod Bay and Great South Channel Critical Habitat areas are included for reference.

NARWSS TABLE 1

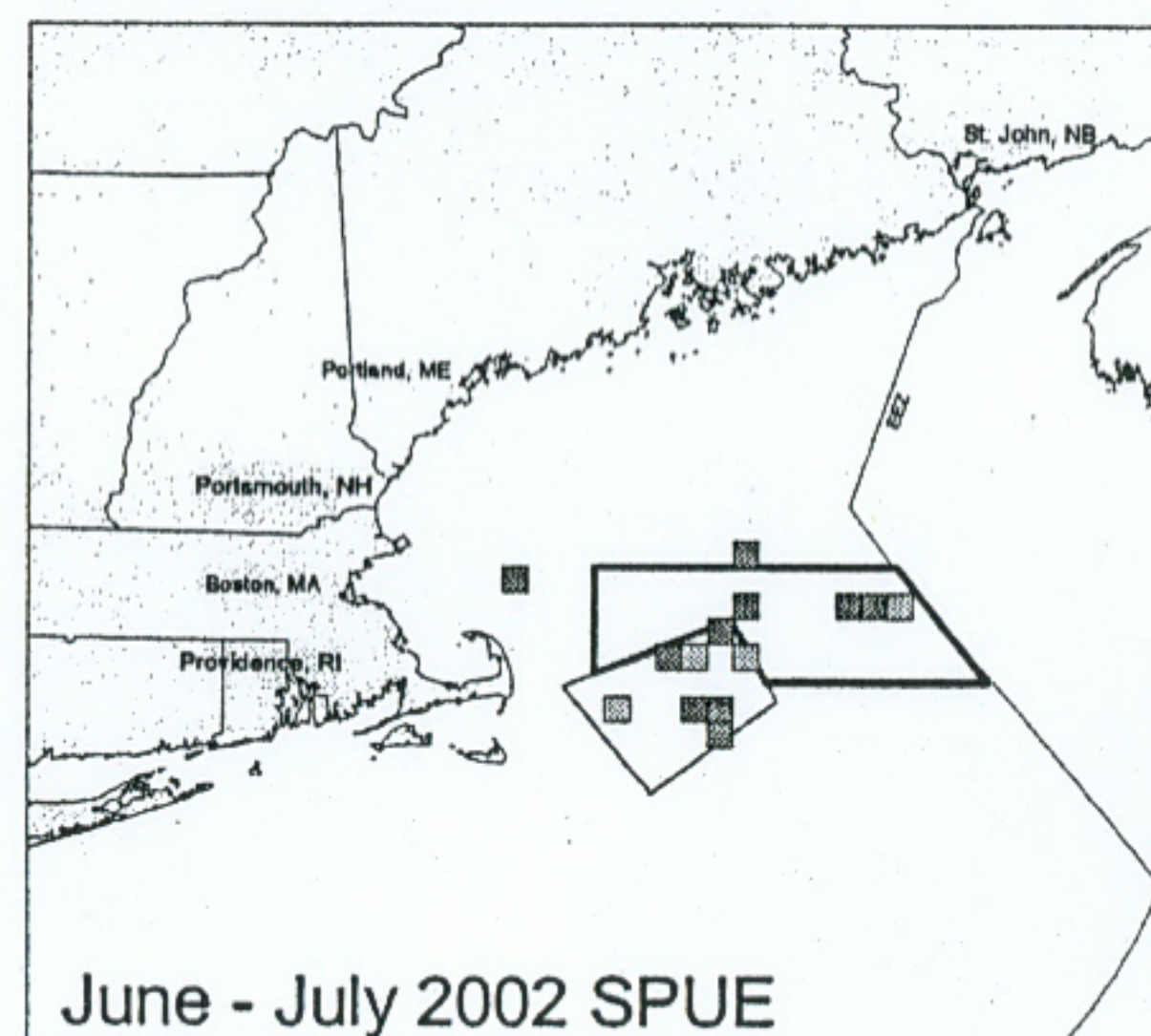
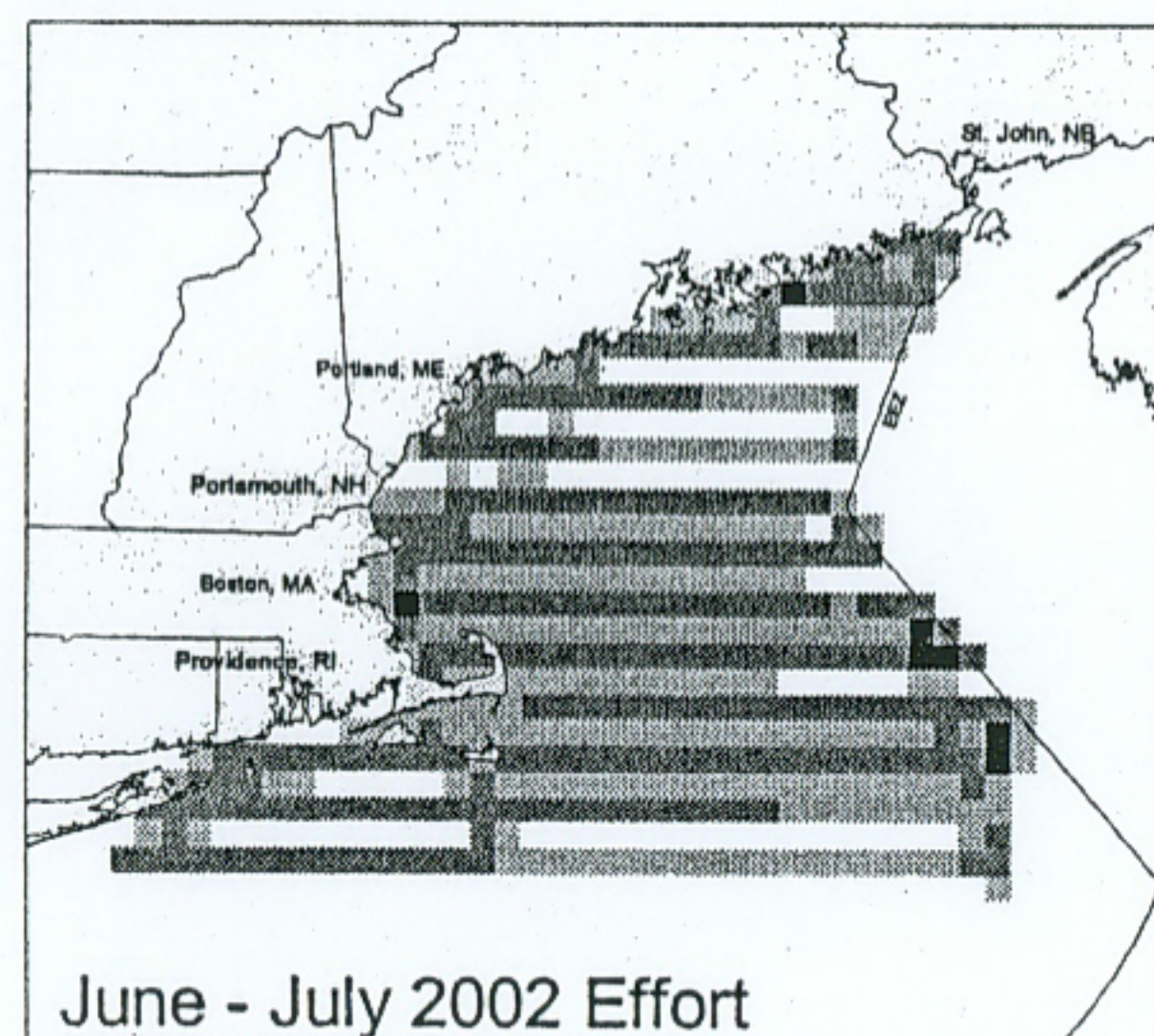
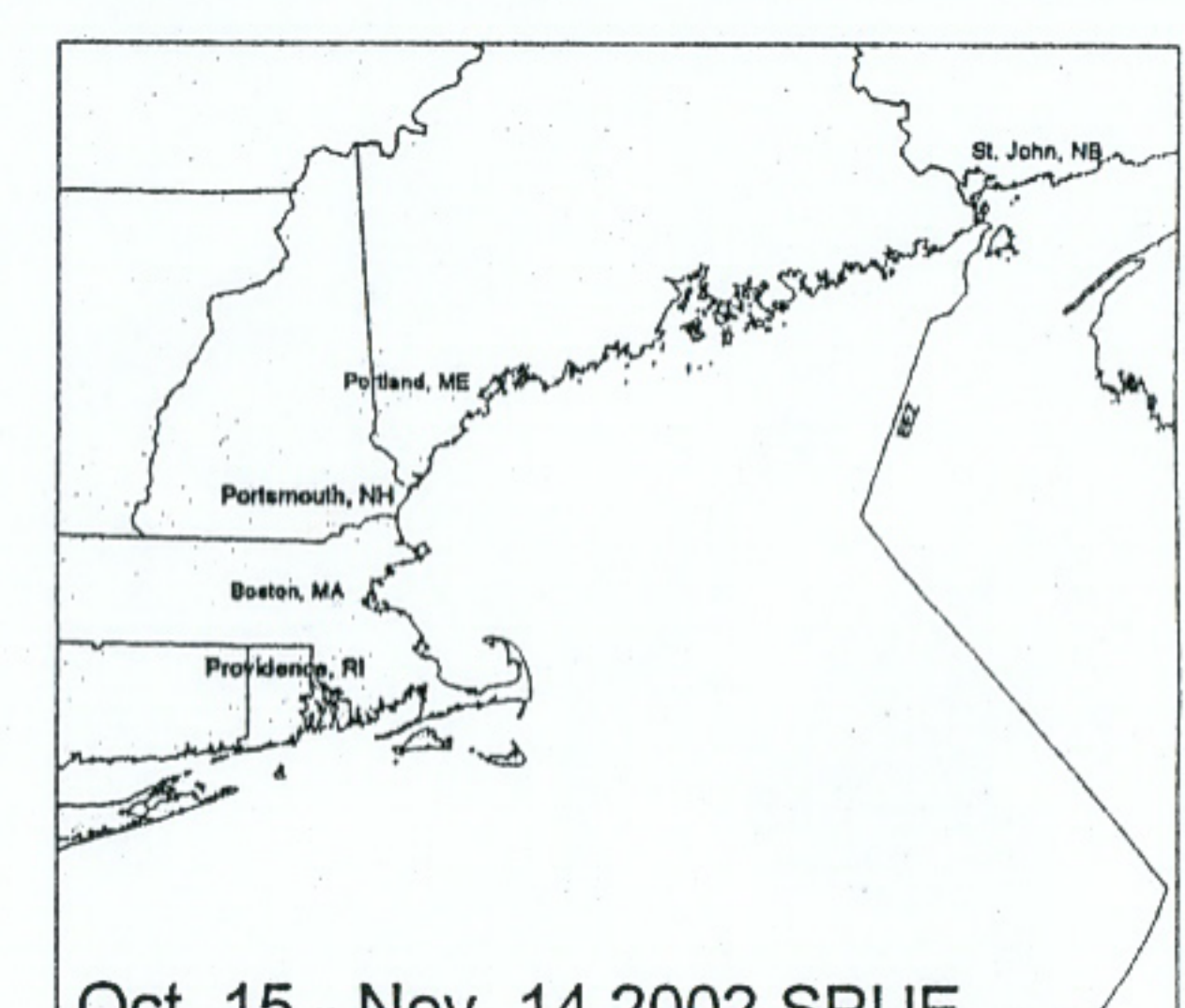
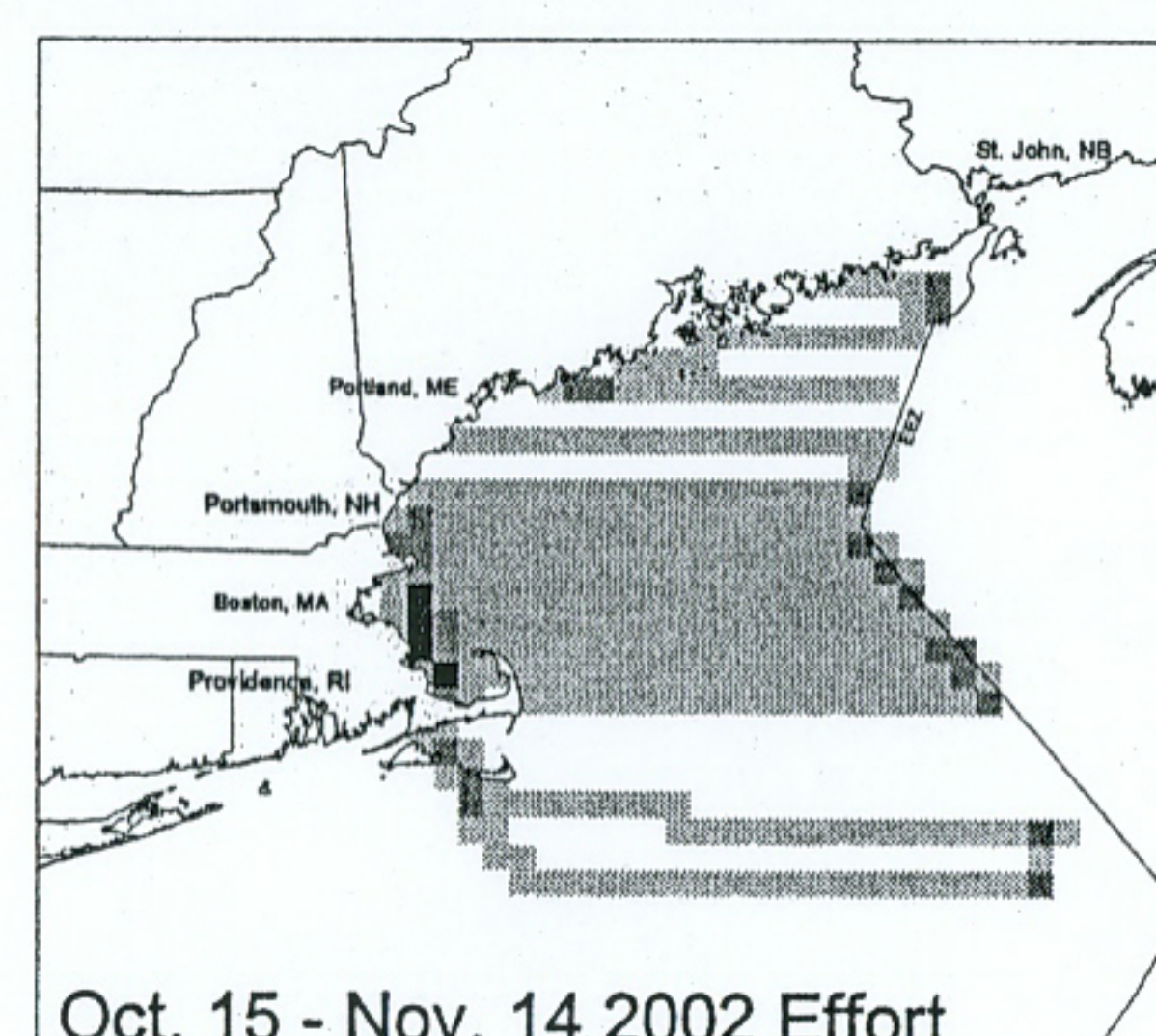
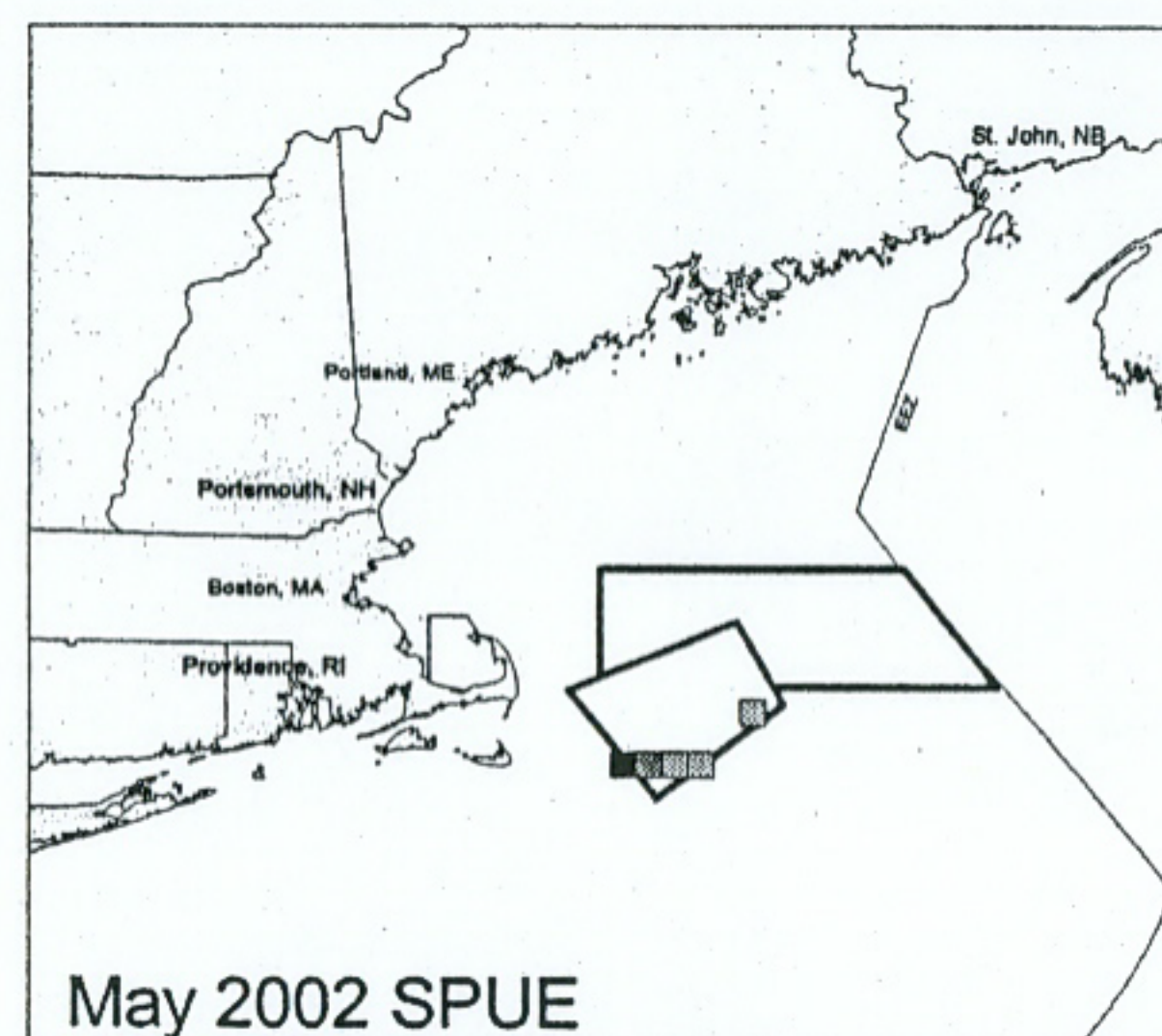
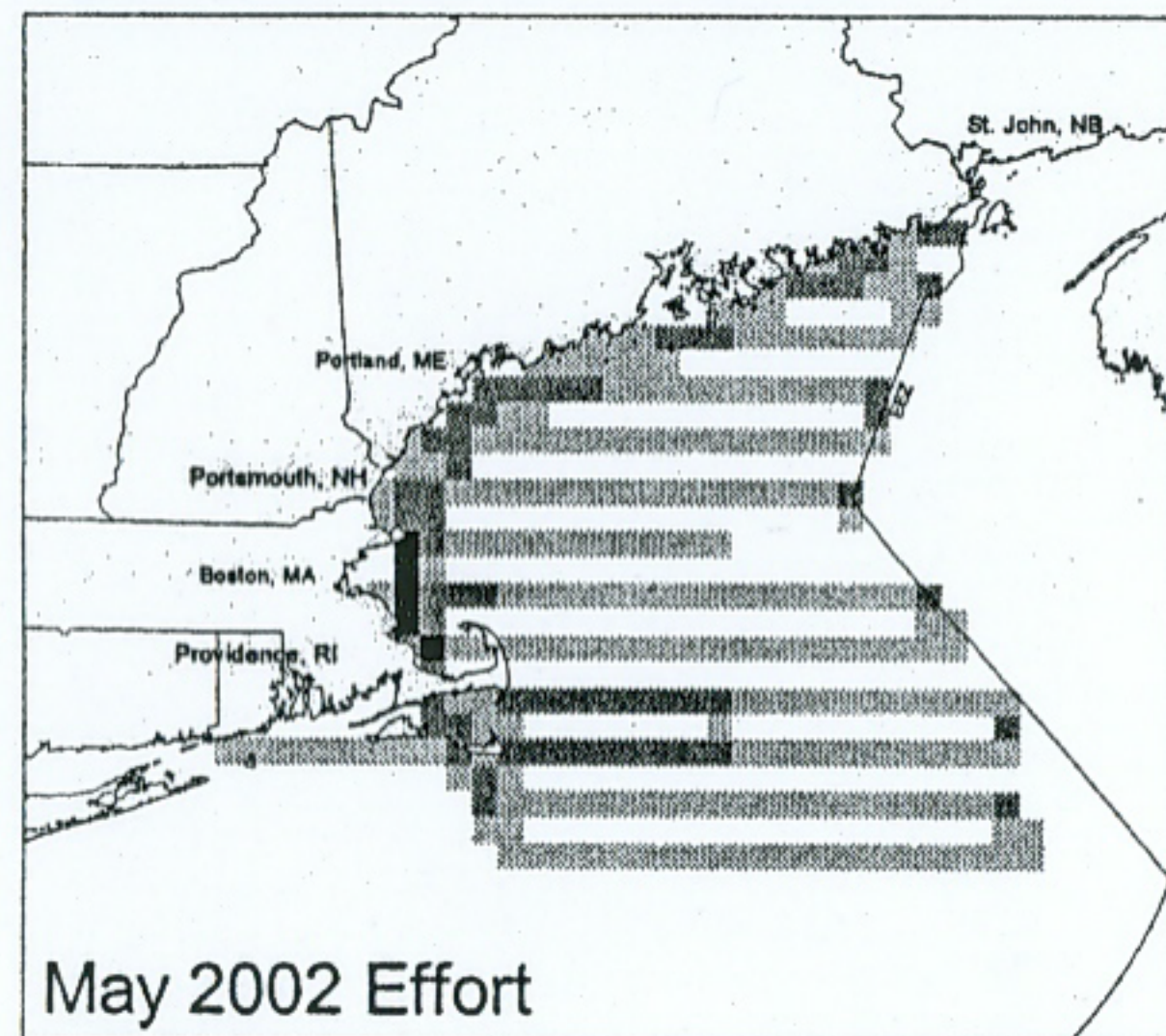
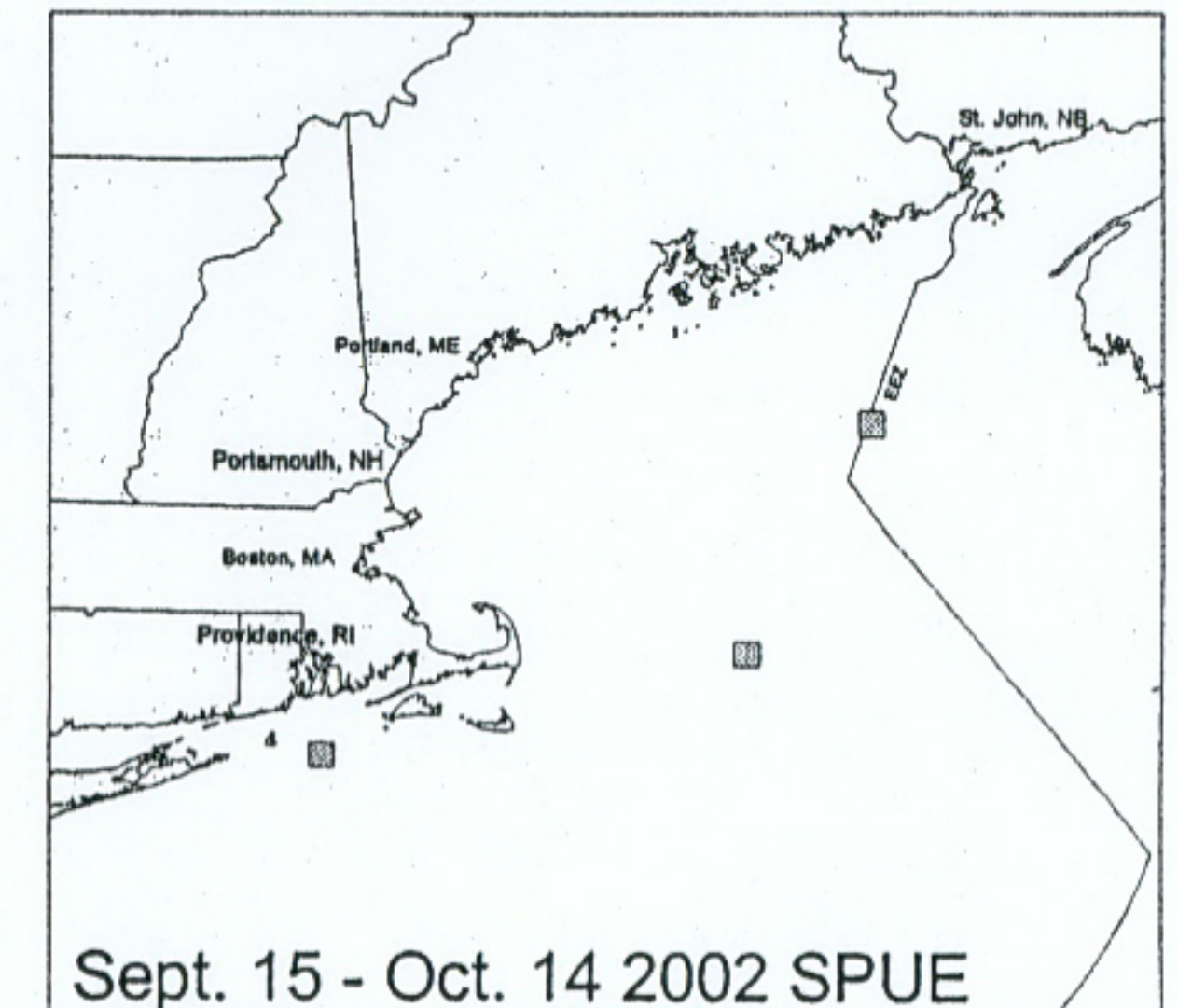
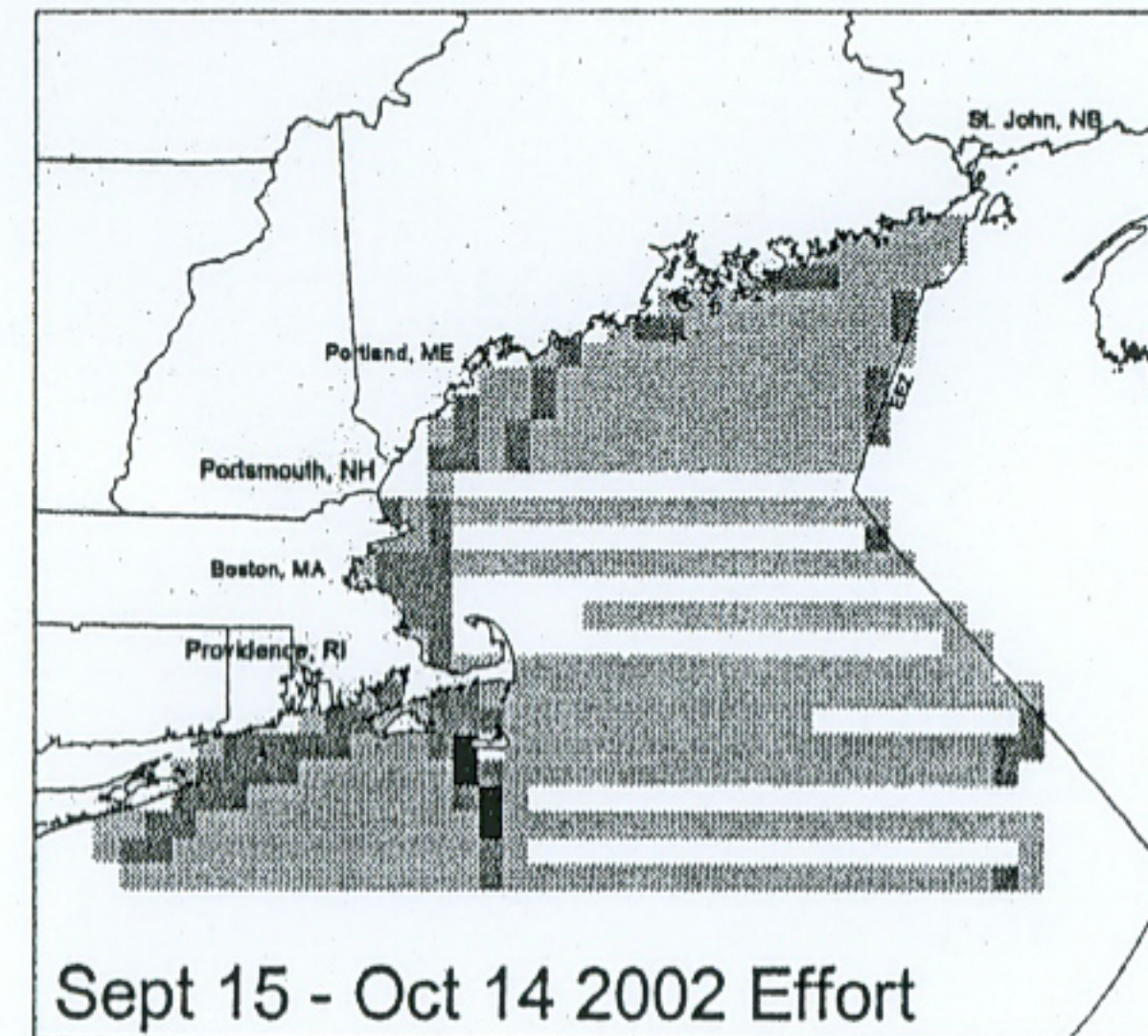
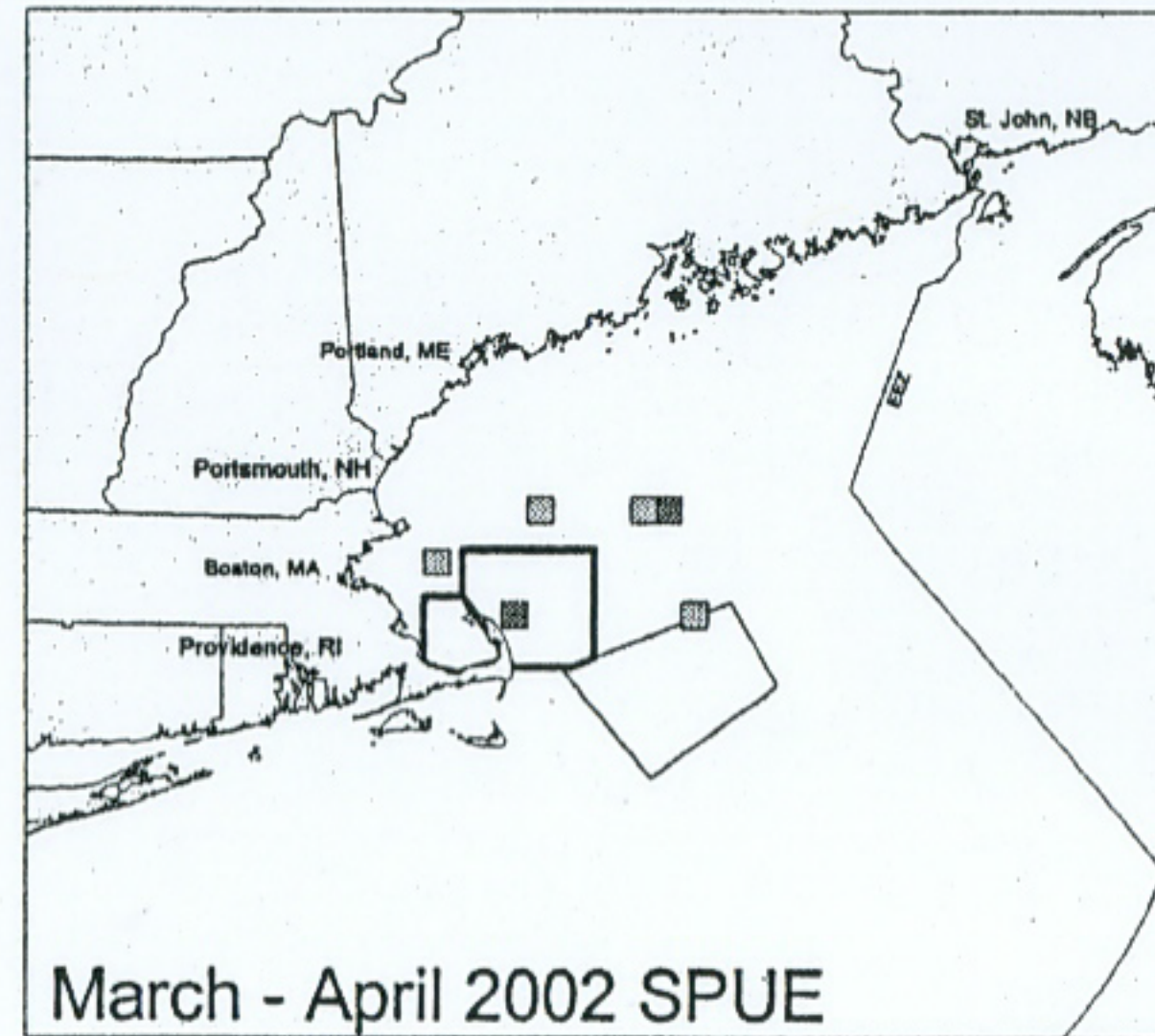
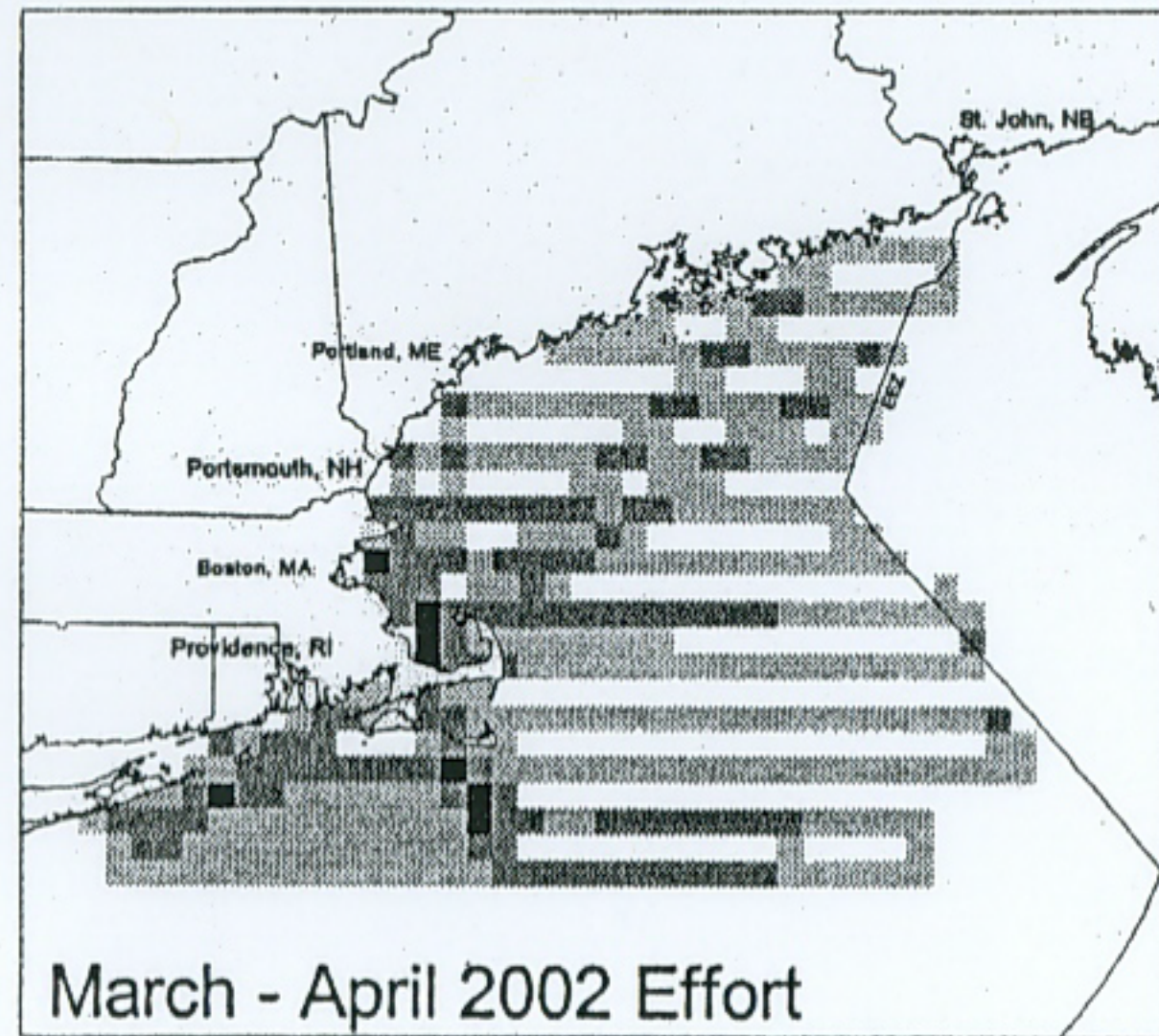
Month in 2002	Flight hours	# Flights *			Broadscale series completed	GSC surveys completed	DAM confirmation flights
		<i>broadscale</i>	<i>focused</i>	<i>other</i>			
March	35	2	3	2			1
April	92	10	7		1	1	3
May	89	9	8	1	1	3	3
June	141	15	11	1	2	4	
July	36	4	4			3	1
August	0						
September	47	9			1		
October	44	7	1		1		
November	25	2	3			1	1
December	18	1	3				3
totals	527	59	40	4	6	12	12

* Flights that had both broadscale and focused survey time were counted as broadscale flights. Of the focused flights, 17 were strictly 'management' flights totaling 82 hours; these included DAM confirmations, disentanglement support, and carcass checks. Other flights included ferrying flights, telemetry testing, and a Congressional review flight.

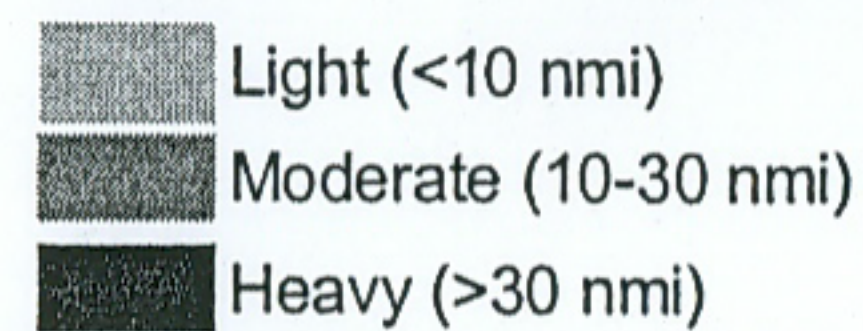
NARWSS FIGURE 1



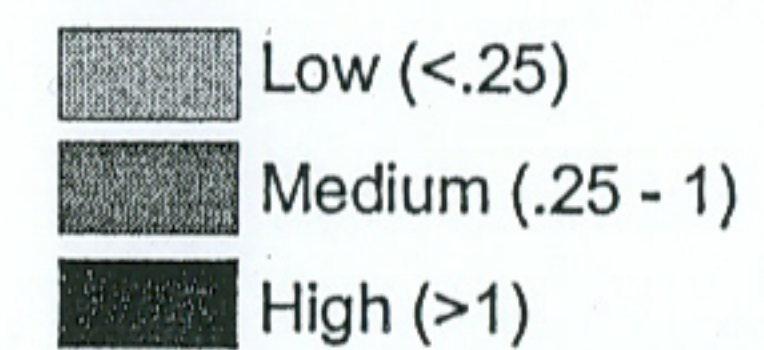
NARWSS FIGURE 2



EFFORT



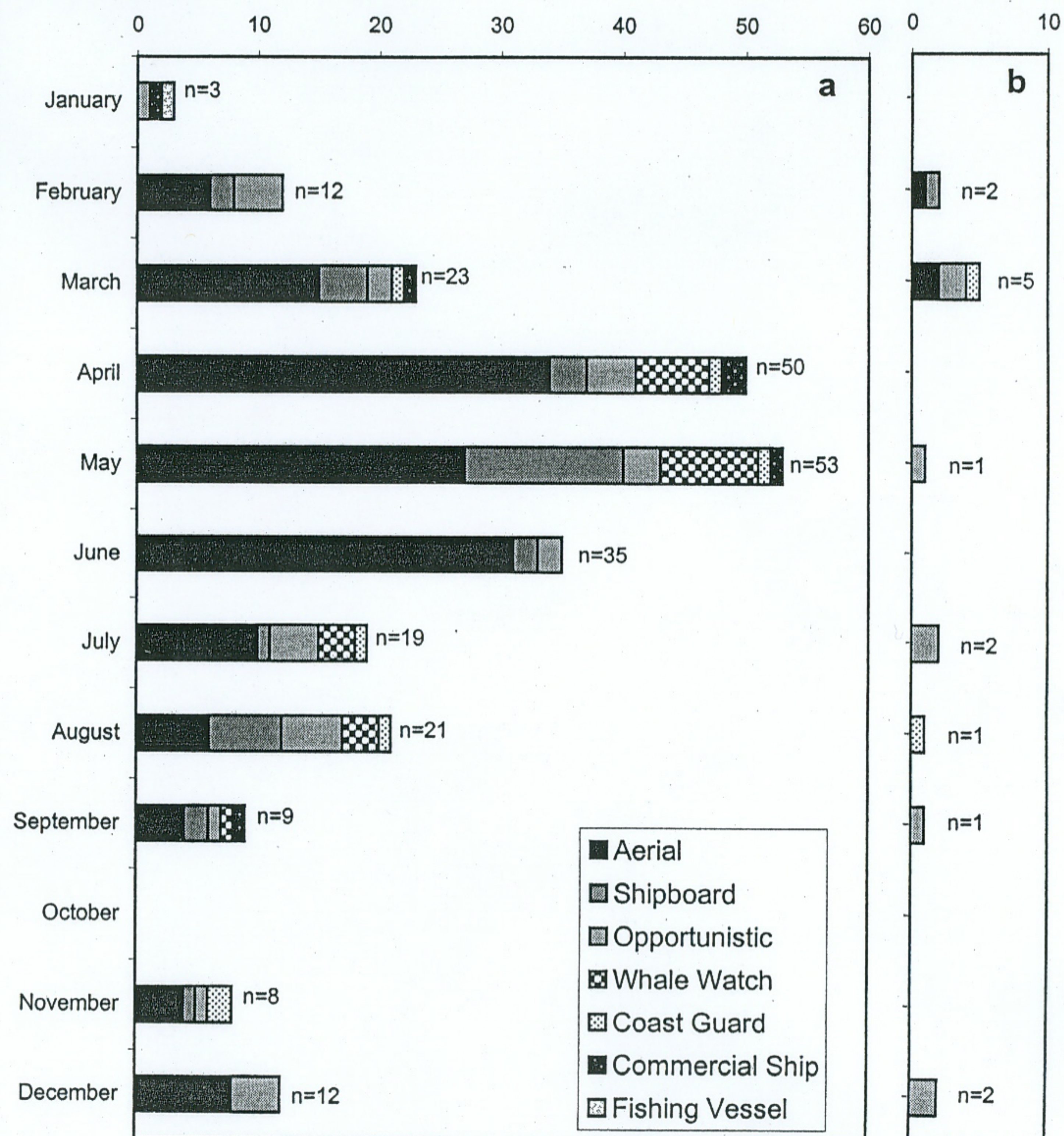
SPUE



SAS TABLE 1

Report source	# Reports	Unconfirmed	Late
Aerial survey	145		
Shipboard survey	34		1
Whale Watch	21		2
Opportunistic	31	3	5
Coast Guard	7		
Commercial Ship	6	4	1
Fishing Vessel	1		
totals	245	7	9

SAS FIGURE 1



SAS FIGURE 2

